

Brush, Jason

From: Brush, Jason
Sent: Friday, August 23, 2013 12:12 PM
To: Harris-Bishop, Rusty; Goldmann, Elizabeth; Leidy, Robert
Cc: Plenys, Thomas; Marincola, JamesPaul; Goforth, Kathleen; Jessop, Carter
Subject: RE: Followup questions from Tony Davis, Arizona Daily Star

This is a lot. Would a follow up call be better?

From: Harris-Bishop, Rusty
Sent: Friday, August 23, 2013 11:46 AM
To: Brush, Jason; Goldmann, Elizabeth; Leidy, Robert
Cc: Plenys, Thomas; Marincola, JamesPaul; Goforth, Kathleen; Jessop, Carter
Subject: FW: Followup questions from Tony Davis, Arizona Daily Star

Tony has some follow-up questions. I'm copying the NEPA folks just to keep y'all in the loop.

Rusty

From: Tony Davis [<mailto:verdin@azstarnet.com>]
Sent: Thursday, August 22, 2013 5:23 PM
To: Harris-Bishop, Rusty
Subject: Followup questions from Tony Davis, Arizona Daily Star

Rusty,

Here indeed are some followup questions.

a) On page 2 of Rosemont Copper vice president Kathy Arnold's June 19 letter to Jason Brush, bottom paragraph, Arnold said that Rosemont anticipates meeting its compensatory mitigation obligation for the Rosemont Project through establishment and/or payment to an in-lieu fee project, or projects. It said on the following page that the company planned to present more details of this in-lieu package at a later meeting with EPA. I presume that this in-lieu package includes both the Cienega Creek-Pantano Dam water rights mitigation plan, and the Sonoita Creek Ranch mitigation proposal.

Does the fact that these are now in-lieu mitigation proposals, as opposed to permittee-run mitigation proposals, help overcome any of the concerns that EPA has laid out about these plans in its Jan. 25 letter, or any of the concerns that Jason Brush and others from Region 9 laid out in their phone conversation with me last Monday, Aug. 12?

b) In EPA's Jan. 25 letter, page 3, the agency says that "the proposed project will authorize the direct fill of 39.97 acres of waters, including a largely undisturbed network of 18 linear miles of stream, comprised of up to 154 individual drainages." Could we get more details from the EPA about which waters of the US would be filled, including the 18 miles of streams?

c) I've read the Coronado National Forest's Rosemont administrative FEIS draft report's sections on surface water quantity and on seeps, springs and riparian areas. They lay out a whole range of potential effects of the mine on these resources. I was wondering EPA could comment on some of these conclusions, listed below. On the telephone last week, one of you told me EPA still has some concerns about the models the Forest Service used to reach some of its conclusions about the mine's 404-related impacts, including to Davidson Canyon and Cienega Creek.

Of these conclusions I'm listing below, how many of them do you believe are based on inadequate or otherwise inaccurate or problematic modelling? Or could you name a couple or three such forecasts you think are based on less than ideal or otherwise problematic monitoring? Or does EPA think most of these forecasts are based on valid modelling?

1)Runoff declines: 17.2 percent reduction in average annual volume of stormwater flow; from the mine, down from 34 percent in the 2011 draft EIS; 22 percent reduction in 100 year 24 hour peak stormwater flow from the mine site, and a 4.3% reduction in stormwater flow in lower Davidson Canyon.

2). During the mining period, runoff reduction is likely to approach 30-40 percent annually. As the waste rock buttress is built around waste rock and tailings facilities, surface is revegetated. Stormwater likely to be released, and the amount of runoff lost to the watershed would be gradually reduced.

3)Empire Gulch: In the near-term, up to 50 years after mine closure, .2 foot to .5 foot groundwater level drawdown expected. Long-term: 150 years: .3 foot to 2.5 feet drawdown. Long-term, 1000 years: 3.3 to 6 ft drawdown. If such groundwater drawdowns do occur, the spring and stream flow would likely be affected.

4)Cienega Creek. In the near term, no more than .1 foot groundwater drawdown. Modeling results indicate that it is unlikely any impacts to perennial stream flow would occur at any location along Cienega Creek in near term. Long term: .1 to .25 foot in reduced streamflow in 150 years. In 1,000 years: .1 to 2.2 feet in reduced streamflow is likely.

Some drawdown could be an eventual long-term possibility along Cienega Creek, albeit highly speculative. A small change in groundwater level or flow could impact stream flow. A small change in stream flow could result in loss of surface flow during droughts. Also, reduction of Empire Gulch streamflow could reduce Cienega streamflow further.

5)Davidson Canyon; Runoff in Barrel Canyon at SR 83 would be reduced 17 to 46 percent; Surface flow in lower Davidson canyon, 12 miles downstream, from Barrel, could be reduced by a range of 4.3 to 11.5%. But surface water hydrology of the watershed suggests modelling here is probably overestimating the effects of the flow reduction on groundwater recharge. The contribution is likely less than forecast, due to the distance downstream of the project area and substantial channel losses. Weight of evidence suggests that lower Davidson Canyon is not hydrologically connected to the regional aquifer that would be affected by open pit dewatering.

6)Empire Gulch: 407 acres of riparian habitat may be affected in the long term due to a groundwater drawdown of possibly several feet. This could reduce the recruitment of cottonwoods, increase mortality rates, decrease canopy height and vegetation volume and encourage transition to deeper rooted tamarisk or mesquite.

7)No effects expected on Cienega Creek riparian vegetation.

8)Davidson Canyon Reach 2. Surface flow could be reduced by 13.1 to 34.8%. There is a high level of certainty for that prediction. It may reduce quality of 502 acres of hydriparian habitat. Reaches 3 and 4: Streamflow reduction 4.3 to 11.5%. Effects on riparian habitat unlikely.

9)Barrel Canyon; Surface runoff would be reduced 17.2 percent in later years of mine life and post-closure, and 30 to 40 percent in the first 10 years. Changes in riparian vegetation are difficult to quantify. This is xeriparian habitat. Complete loss is unlikely. Transition from high quality to lesser quality xeriparian habitat is highly likely. Total of 162 acres could be affected.

10)No predicted impacts to outstanding Arizona waters in Cienega Creek or Davidson Canyon that would reduce their ability to meet state antidegradation standards.

That's it. Thank you very much and sincerely,

Tony Davis
Environmental reporter
Arizona Daily Star

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